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**Title:** Acknowledging feelings to enhance prosociality : emotional awareness and prosocial behaviors in adolescence

**Author:** Marcin Moroń, Karolina Glinka, Agnieszka Doktor

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## **Acknowledging Feelings to Enhance Prosociality: Emotional Awareness and Prosocial Behaviors in Adolescence**

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### **Abstract**

Prosocial behavior is correlated with better social adjustment among adolescents, while emotional abilities are prominent factors that enhance prosocial behaviors. Attention to emotions and clarity of emotion were found as two core dimensions of emotional abilities. In the presented study the relationships between attention to emotion and clarity of emotion and prosocial behavior were examined with gender as a moderator. Two hundred and fourteen adolescents participated in the study (86 males). The participants filled in the Toronto Alexithymia Scale (TAS-20), Trait Meta-Mood Scale (TMMS), and Prosocial Behavior Questionnaire (PBQ). Two dimensions underlying the subscales of TAS-20 and TMMS were found: inattention to emotions and unclear emotion. Gender differences appeared in emotion awareness dimensions and prosocial behavior. Using structural equation modeling it was shown that inattention to emotion, yet not unclear emotion, inhibits prosocial behavior.

**Keywords:** *emotional awareness, prosocial behavior, adolescence*

### **Introduction**

Prosocial attitudes and behaviors play a crucial role in the successful development and adjustment of adolescents (Caprara et al., 2014). Prosocial children and adolescents have better peer relationships (Eisenberg, Fabes, & Spinrad, 2006),

are less at risk of externalizing behaviors and aggression (Kokko et al., 2006), and perform better in school (Caprara et al., 2014). In adolescence, due to the development of social competences (e.g., perspective taking; Van der Graff et al., 2014), prosocial behavior may be more helpful in establishing beneficial social bonds (Fabes et al., 1999). Displaying prosocial behavior is also a protective factor against association with deviant peers and subsequent delinquent and antisocial behaviors in adolescence (Carlo et al., 2014).

Prosocial behavior is defined as a voluntary behavior aimed at benefiting others (Caprara et al., 2014). Carlo and Randall (2002) extracted six types of prosocial behavior: altruistic (voluntary helping, motivated primarily by concern for the needs and welfare of others, often induced by sympathy and internalized norms/principles consistent with helping others), compliant (helping others in response to a verbal or nonverbal request), emotional (an orientation toward helping others under emotionally evocative circumstances), dire (helping in crisis or emergency situations), public (prosocial behaviors conducted in front of an audience are likely to be motivated, at least in part, by a desire to gain the approval and respect of others) and anonymous (helping performed without knowledge of who helped). Nielson, Padilla-Walker, and Holmes (2017) differentiated five types of prosocial behaviors: defending, emotional support, social inclusion, physical helping, and sharing. In a sample of Polish teenagers, three factors of prosocial behavior were obtained: charitable behaviors, active prosocial behaviors, and support behaviors (Moroń, 2012).

Displaying prosocial behavior is boosted by empathy and problem-focused coping (Carlo et al., 2012) and enhanced with high agreeableness (Eisenberg et al., 2006), yet inhibited by dispositional envy (Yu, Hao, & Shi, 2018). There are also gender differences in prosocial behavior, mainly in favour of women (Fabes et al., 1999), and the evidence for a greater role of emotional abilities in fostering helping behavior among women (Kuhnert et al., 2017). While emotional abilities were stressed as critical antecedents of prosocial behavior (Eisenberg et al., 2006), the initial stages of school-based preventive interventions include development of emotion regulation skills, acknowledging feelings and broadening of emotional awareness of adolescents (Caprara et al., 2014).

Two core dimensions of emotional abilities could be differentiated, namely: attention to emotions and clarity of emotion (Coffey, Berenbaum, & Kerns, 2003; Palmieri, Boden, & Berenbaum, 2009). Both dimensions refer to consciousness of one's emotional states. Winkelmann, Berridge and Sher (2011) stressed that any form of consciousness allows the organism to go beyond simple, habitual reactions and design novel, complex, context-sensitive forms of responding. This

regulatory function is perceived as implicating tremendous social consequences (Ochsner & Gross, 2004), which could be also seen in the propensity to prosocial or aggressive behavior.

Attention to emotions refers to focusing attention on emotional processes, and becoming aware of and valuing them (Boden & Thompson, 2017). Attention to emotions is linked to extraversion, openness (Coffey, Berenbaum, & Kerns, 2003), and emotion intensity rather than to emotional variability (Thompson, Dizen, & Berenbaum, 2009). Individuals higher in attention to emotion tend to have increased levels of both negative and positive affect. However, in a prospective study, attention to emotion was found to predict a decrease in levels of negative affect, but no change in the level of positive affect (Thompson et al., 2011).

Emotional clarity refers to meta-knowledge about emotions, and reflects the extent to which people unambiguously identify, label, and characterize their own emotions (Boden & Thompson, 2017). Clarity of emotion is negatively correlated with self-focused needs (Dizèn, Berenbaum, & Kerns, 2005), while an ambiguity over emotions is positively correlated with neuroticism (Coffey, Berenbaum, & Kerns, 2003). Clarity of emotion is more highly associated with emotion variability than attention to emotions is (Thompson, Dizen, & Berenbaum, 2009). Diminished emotional clarity is associated more strongly with social anxiety than with depression (Thompson, Boden, & Gotlib, 2017).

Emotional abilities in general are found to be correlated with a greater propensity to prosocial behavior (e.g., Charbonneau & Nicol, 2002; Gil-Olarte Marquez et al., 2006), whereas low emotional awareness favors suspiciousness (Boden & Berenbaum, 2007). Emotional awareness correlates with perspective taking, empathic concern and agreeableness (Abbate et al., 2006), which are significant predictors of helping others (Eisenberg et al., 2006). Attention to emotion and clarity of emotion were positively correlated with pro-social attitudes (Jiménez & López-Zafra, 2013), while alexithymia (a reverse of emotional awareness) is linked with lower prosocial tendencies (FeldmanHall et al., 2013).

The aim of the presented study was to examine associations between facets of emotional awareness, attention to emotion and clarity of emotion, and prosocial behaviors of adolescents. According to the abovementioned results it was hypothesised that both attention to emotion and clarity of emotion would be positively correlated with prosocial behavior. It was also hypothesized that gender would be a significant predictor of emotional awareness and prosocial behaviors, while levels of both variables would be higher among women than men. The present study contributes to the current knowledge mainly by examination of emotional awareness as a predictor of prosocial behavior and by inspection of a separate

role of components of emotional awareness for prosocial behavior. Given that emotional awareness is possible to develop, results of the study may be useful in preparing prevention programmes in schools. The results may also show in what way emotional awareness should be trained to foster desirable prosocial behaviors among adolescents.

## Method

### Participants

Participants were 214 students of secondary schools (86 males). The participants' age ranged from 15 to 23 ( $M = 17.77$ ;  $SD = 1.01$ ). The participation was fully voluntary. The number of participants is larger than the sample size appropriate for detection of correlational coefficients of magnitude around .261, which was previously demonstrated by Jiménez and López-Zafra (2013) for a relationships between emotional awareness and prosocial attitudes, therefore the study ensures high statistical power for detection of such relationships (appropriate sample size to restrain Type II error to  $\beta = .100$ , while keeping  $\alpha$  at the level of .01 should be  $N = 211$ ; cf., Hulley, Cummings, Browner, Grady, & Newman, 2013).

### Materials

*The Toronto Alexithymia Scale, TAS-20* (Bagby et al., 1994; author's translation). The TAS-20 consists of three subscales: difficulty identifying feelings (DIF; 7 items; e.g., "I am often confused about what emotion I am feeling"), difficulty describing feelings (DDF; 5 items; e.g., "I am able to describe my feelings easily"), and externally oriented thinking (EOT; 8 items; e.g., "I prefer talking to people about their daily activities rather than their feelings"). Items were assessed on a Likert-type scale from 1 (completely uncharacteristic of me) to 5 (completely characteristic of me). A score for each subscale was computed as an average rating. The TAS-20 is in wide international use and has shown good reliability and construct validity (Taylor, Bagby, & Parker, 2003).

*The Trait Meta-Mood Scale, TMMS* (Salovey et al., 1995; author's translation). The TMMS is a 30-item scale consisting of three subscales – attention (13 items; e.g., "I pay a lot of attention to how I feel"), clarity (11 items; e.g., "I am usually very clear about my feelings"), and repair (6 items; e.g., "When I become upset, I remind myself of all the pleasures in life"). The participants ranked items on a scale from 1 (completely uncharacteristic of me) to 5 (completely characteristic of me). A score for each subscale was computed as an average rating. The TMMS

has also shown good reliability, and construct validity in many language versions (e.g., Salguero et al., 2010).

*The Prosocial Behavior Questionnaire, PBQ* (Moroñ, 2012). The PBQ is a 20-item measure of prosocial behavior adapted to use in studies conducted among adolescents. Participants indicate how often they undertake several helping behaviors from three domains: charity, active prosocial behavior (e.g., volunteering), and prosocial supporting behavior (e.g., sharing) on a five-point scale ranging from 0 (never) to 4 (very often). A score was computed as an average rating.

### Procedure

After obtaining permissions from the head teachers of schools, the study was conducted in small groups during classes. Verbal informed consent was also obtained from every participant before participation. After the study each group was debriefed.

### Data analysis

Analyses were conducted in R 3.1.3. with packages: “psych” (descriptive statistics, correlations, tests of differences and factor analysis) and “lavaan” (structural equation modeling).

## Research Results

Descriptive statistics are presented in Table 1.

**Table 1.** Descriptive statistics for variables.

Variable	1	2	3	4	5	6	7	8	9
1. DIF									
2. DDF	.62***								
3. EOT	.15*	.24***							
4. Attention	-.12†	-.21***	-.52***						
5. Clarity	-.71***	-.61***	-.20***	.18**					
6. Repair	-.40***	-.35***	-.13†	.21***	.52***				
7. DiC	.03	-.01	-.09	.14*	-.08	.14*			
8. ADP	.04	-.001	-.12†	.11	-.01	.14*	.52***		
9. PDW	-.004	-.09	-.28***	.17*	.07	.27***	.47***	.53***	

Variable	1	2	3	4	5	6	7	8	9
$M_{total} (SD)$	2.35 (.84)	2.67 (.85)	2.31 (.64)	3.55 (.62)	3.35 (.66)	3.27 (.91)	1.72 (.73)	.91 (.75)	2.39 (.64)
$\alpha$	.79	.67	.67	.81	.81	.80	.78	.72	.64
$M_{women} (SD)$	2.47 (.88)	2.73 (.89)	2.25 (.63)	3.63 (.58)	3.22 (.69)	3.14 (.91)	1.91 (.69)	1.04 (.81)	2.45 (.66)
$M_{men} (SD)$	2.14 (.74)	2.55 (.77)	2.38 (.64)	3.48 (.63)	3.57 (.55)	3.47 (.87)	1.44 (.72)	.71 (.60)	2.29 (.59)
$t$ (Cohen's $d$ )	-2.99** (-.41)	-1.63 (-.22)	1.51 (.22)	-1.72† (-.24)	4.14*** (.57)	2.66** (.36)	-4.77*** (-.65)	-3.48*** (-.48)	-1.88† (-.26)

Note. DIF – difficulties identifying feelings; DDF – difficulties describing feelings; EOT – externally oriented thinking; DiC – charity; ADP – active prosocial behavior; PDW – prosocial supporting behavior;

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$ ; †  $p < .08$

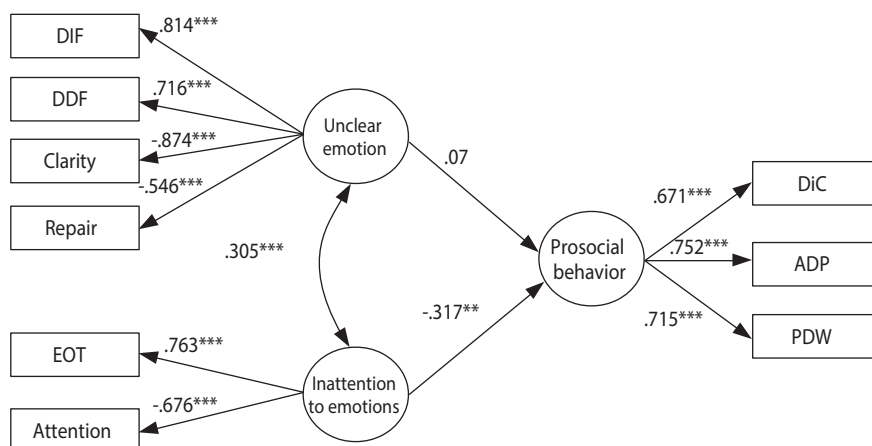
Following Coffey et al. (2003), the computation of indices of attention to emotion and clarity of emotion were conducted by means of factor analysis (FA) on the subscales of TMMS and TAS-20 ( $KMO = .74$ ; Promax rotation). According to the hypothesised model and parallel analysis, two-factor solution was obtained (Table 2).

**Table 2.** Factor loadings for emotional awareness variables

Variable	Factor 1	Factor 2
DIF	.85	
DDF	.87	
EOT		-.52
Attention	.10	.99
Clarity	-.88	
Repair	-.52	
eigenvalue	2.21	1.23
% of explained variance	.37	.21

Note. Loadings lower than .100 were omitted.

According to the results of factor analysis and hypotheses of the presented study, a structural model was constructed and examined. Results are present in Figure 1.



**Figure 1.** Structural model of relations between variables.

*Note.* DIF – difficulties identifying feelings; DDF – difficulties describing feelings; EOT – externally oriented thinking; DiC – charity; ADP – active prosocial behavior; PDW – prosocial supporting behavior.

\*\*  $p < .01$ ; \*\*\*  $p < .001$ .

Examination of the loadings of the TAS-20 and TMMS subscales indicated that latent variables had opposite meaning to that hypothesised: lack of emotional clarity (referred to as: ‘unclear emotion’), and inattention to emotion. A postulated model resulted in good fit to data ( $\chi^2 (24) = 53.62$ ;  $p < .001$ ; CFI = .951; TLI = .926; RMSEA = .076; 90% CI for RMSEA = [.041; .103]). All path coefficients were significant, except the direct path between unclear emotion and prosocial behavior. Inattention to emotion was a negative and significant predictor of prosocial behavior.

Next, the structural model was examined with gender as a grouping variable. The analysis yielded in good fit for both genders ( $\chi^2 (48) = 75.49$ ;  $p = .007$ ; CFI = .951; TLI = .926; RMSEA = .073; 90% CI for RMSEA = [.039; .104]; among the men:  $\chi^2 (24) = 32.08$ ;  $p < .13$ ; CFI = .957; TLI = .936; RMSEA = .063; 90% CI for RMSEA = [0; .114]; among the women:  $\chi^2 (24) = 38.17$ ;  $p = .03$ ; CFI = .962; TLI = .943; RMSEA = .067; 90% CI for RMSEA = [.019; .106]). The path from inattention to emotion to prosocial behavior was insignificant among the men,  $\beta = -.241$ ;  $p = .146$ , while significant among the women,  $\beta = -.299$ ;  $p = .054$ . The relationship between unclear emotion and inattention to emotion was stronger among the men,  $\beta = .467$ ;  $p < .001$ , than among the women,  $\beta = .288$ ;  $p = .009$ .



## **Discussion**

In the presented study, the meaning of two core dimensions of emotional awareness was opposite to those derived theoretically, namely ‘inattention to emotions’ and ‘unclear emotion’ (cf. Coffey et al., 2003). The women reported higher levels of attention to emotion, but significantly lower levels of clarity and repair. The men reported lower levels of difficulties identifying feelings than the women. These results partially confirmed previous research which found that women attend more to their emotions than men (Mankus, Boden, & Thomspson, 2016), but are not in concordance with past research indicating that emotional clarity does not vary by gender (Gohm & Clore, 2002). Given self-report methodology of measurement, the obtained results may come from greater self-confidence in males (Quatman & Watson, 2001)

The study confirmed the discriminant validity of inattention to emotions and unclear emotion (Boden & Thopmson, 2017). A negative association was found between inattention to emotions and prosocial behavior, while the relationship between unclear emotion and prosocial behavior was not significant. Attention to emotion leads to higher levels of both positive and negative affect, whereas in prospective design it predicts only a decreased level of negative affect (Thompson et al., 2011). High attention may provide more opportunities to regulate emotion, and people who highly attend to emotions may be more likely to regulate them in service of emotion regulation goals (Tamir, Mitchell, & Gross, 2008). In prominent models of prosocial behavior: a negative-state relief model and empathy-altruism model (Batson et al., 1989), occurrence of emotional arousal is the significant first stage that leads to prosocial behavior. It could be proposed that paying attention to one’s feelings but also being attentive to the feelings of others (both tendencies are embedded in attention to emotion) play a role of an instigator of emotional processing that leads to prosocial behavior. The lack of relationships between unclear emotion and prosocial behavior may correspond to the conclusions of Gini, Pozzoli, and Hauser (2011), who demonstrated that bullies have an enhanced moral competence to judge relative to victims, but lack moral compassion. Their conclusions may be interpreted that bullies may have a high insight into emotional states of victims (clarity of emotion), but voluntarily turn away their attention to avoid emotions resulted from being a witness of one’s harm.

The obtained results may shed new light on Boden and Thompson’s (2017) proposition about the causal relationship of emotional awareness dimensions. The authors suggested that most logically compelling causal relation proceeds from increased attention to increased clarity. According to the present study, it may be

proposed that the relation could also be reversed. With greater emotional clarity an individual may put more attention to get information about their own and others' emotional states. Clarity of emotion may play an important role in an individual's intrapersonal adjustment, but may have only limited importance in shaping interpersonal relationships. Gained meta-emotional knowledge may help in behaving adequately in social situations only if information about the affective states of others is already obtained through high attention to emotion. Given that in both genders the relationships between variables of interest have the same direction and only small differences in the magnitude of regression coefficients appeared, it may be stated that attention to emotion plays a similar role for both men and women.

The present study is subject to some limitations. Firstly, the non-random sampling method used, which may restrict a possibility of generalisation of the obtained results. In the present study, convenience sampling was used, namely a naturally-occurring group of people within the population of adolescents participated in it. Students of several classes drawn from two different schools participated in the study, according to their head teachers' decisions. When using such sampling it is not possible to rule out a confounding role of some moderator variables that may lie behind the obtained results (e.g., specific normative beliefs about prosociality among students of selected schools). Therefore, the detected significant relationships should be confirmed in the future research with the use of random sampling to confirm the validity of obtained effects and its generalisation. Second limitation is connected to a self-report method of prosocial behavior measurement. For more valid results, in the future studies experimental or observational data on prosocial tendencies of adolescents should be obtained. Despite the abovementioned limitations, the presented study brings new information about the importance of emotional awareness for improving prosocial behaviors among adolescents, which could be found useful in social practice. It was also conducted on a sample with an appropriate number of participants, controlling for gender and age.

## **Conclusions**

Two dimensions of emotional abilities were distinguished: inattention to emotion and unclear emotion. The men reported higher levels of clarity and repair subscales of trait meta-mood, while the women reported higher levels of prosocial behavior. Inattention to emotion, but not unclear emotion, was significantly and negatively correlated with prosocial behavior, and these relationships were not substantially moderated by gender.

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